

CHAPTER 5**HAZARDOUS MATERIALS****5-1 SCOPE**

This Chapter contains criteria for the storage, handling, and disposition of hazardous materials used by the DOD. It does not cover solid or hazardous waste, underground storage tanks, petroleum storage, and related spill contingency and emergency response requirements. These matters are covered under other chapters. This document does not cover munitions and radioactive materials.

5-2 DEFINITIONS

5-2.1 Hazardous Chemical Warning Label. A label, tag, or marking on a container in both English and Japanese, where appropriate, which provides the following information: (1) identification/name of hazardous chemicals, (2) appropriate hazard warnings, (3) the name and address of the manufacturer, importer or other responsible party, and (4) part number or stock number. See paragraph 5-3.8 of this Chapter.

5-2.2 Hazardous Material (HM). Any material that is capable of posing an unreasonable risk to health, safety, or environment if improperly handled, stored, issued, transported, labeled, or disposed because:

- a. It displays a characteristic listed in Table 5-1 to this Chapter; or
- b. It is identified in Title 49 Code of Federal Regulations (CFR), Department of Transportation (DOT), the International Air Transportation Association (IATA) regulations, the International Maritime Dangerous Goods (IMDG) Code; or
- c. The material is listed in Appendix A.

5-2.3 Hazardous Material Information System (HMIS). The computer-based information system developed to accumulate, maintain and disseminate important information on hazardous material used by the DOD.

5-2.4 Hazardous Material Shipment. Any movement of hazardous material in an approved DOD or contractor land vehicle either from an installation to a final destination off the installation, or from a point of origin off the installation to a final destination on the installation, in excess of any of the following quantities:

- a. For hazardous material identified as a result of inclusion in Appendix A, any quantity in excess of the reportable quantity listed in Appendix A;
- b. For other liquid or semi-liquid hazardous material, in excess of 415 liters (110 gallons);
- c. For other solid hazardous material, in excess of 225 Kg (500 pounds); or
- d. For combinations of liquid, semi-liquid and solid hazardous materials, in excess of 340 kg (750 pounds).

5-2.5 Material Safety Data Sheet (MSDS). A form used by manufacturers of chemical products to communicate to users the chemical, physical, and hazardous properties of their product.

5-3 CRITERIA

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5-3.1 The storage and handling of hazardous materials will adhere to the Army TM 38-410, Navy NAVSUP PUB 505, Air Force AFR 69-9, Marine Corps MCO 4450-12 or Defence Logistics Agency DLAM 4145.11: "Storage and Handling and Implementing Regulations Governing Storage and Handling of Hazardous Materials."

5-3.2 Hazardous material dispensing areas will be properly maintained. Drums/containers must not be leaking. Drip pans/absorbent materials will be placed under containers which contain liquids as necessary to collect drips resulting from use. Container contents will be clearly labeled. Dispensing areas will be located away from catch basins and storm drains.

5-3.3 All DOD/Master Labor Contract (MLC)/Indirect Hire Agreement (IHA) personnel who use, handle or store hazardous materials will be trained in accordance with the regulations cited in Section 5-3.1 above. Training will be bilingual as necessary. All personnel who are involved with hazardous materials will be trained with:

- a. Awareness/familiarization training to enable the employee to recognize and identify hazardous property;
- b. Function-specific training for the mode of transportation utilized;
- c. Safety training to educate the employee in the areas of emergency response, measures to protect the employee from the hazards to which they may be exposed and methods and procedures to avoid accidents through proper handling;
- d. Training performed to meet the requirement of Section 5-3.1 that addresses the training specified herein may be used to satisfy this requirement to avoid unnecessary duplication of training.

5-3.4 Installations will ensure that for each hazardous material shipment:

- a. The shipment is accompanied by shipping papers from its point of origin to its final destination. The shipping papers will be completed in accordance with local transportation regulations Title 49 CFR (DOT), IATA regulations or the IMDG Code depending upon the mode of transportation utilized. An MSDS or its equivalent will be attached to the shipping paper for each hazardous material listed on the shipping paper. A DD Form 1348-1A may be used as a shipping paper for hazardous material shipments over public roads.
- b. All vehicle drivers are briefed on the hazards of the materials being transported, and must carry in their vehicle and be proficient in the use of an Emergency Response Guidebook (DOT RSPA P 5800.6) or equivalent.
- c. All DOD vehicles are subjected to a walk around inspection by supervisory personnel before and after the material is loaded.
- d. Hazardous materials must be in Performance Oriented Packing (POP), marked and labeled in accordance with Title 49 CFR, IATA regulations, local or the IMDG Code. Exception: Non bulk packing, other than cylinders, which were filled prior to 1 Oct, 96 (in conformance with regulations in effect on 30 Sep, 96) can be offered for transportation and transported domestically until 1 Oct, 99. This provision does not authorize the filling of packaging; only offering transportation of packaging filled prior to 1 Oct, 96.
- e. All hazardous materials will have a hazardous chemical warning label in accordance with Section 5-3.9.
- f. If installations use commercial transporters, ensure that contractors have applicable licenses or permits for operation.
- g. All vehicles transporting hazardous materials will have a spill contingency kit appropriate for the hazardous materials on board consisting of adequate materials to properly respond to a possible release or spill.

- h. All containers are secured with straps, bracing, dunnage, etc., to prevent movement or displacement of containers during transit.
- i. DOD vehicles may not be placarded, especially when traveling outside the USFJ installations.

5-3.5 Air shipments of hazardous material originating from DOD installations will adhere to Title 49 CFR or IATA regulations. Water shipments of hazardous materials originating from DOD installations will adhere to the IMDG Code.

5-3.6 Each installation will maintain a master listing of all storage facilities approved by the Installation Commander for hazardous material, and an inventory of all hazardous materials contained therein (see Chapter 18).

5-3.7 Material Safety Data Sheets (MSDS). Each MSDS shall be in English and shall contain at least the following information:

a. Material Identification

- (1) If the hazardous chemical is a single substance, its chemical and common name.
- (2) If the hazardous chemical is a mixture which has been tested as a whole to determine its hazards, the chemical and common name(s) of the ingredients which contribute to these known hazards, and the common name(s) of the mixture itself; or,
- (3) If the hazardous chemical is a mixture which has not been tested as a whole:
 - (a) The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise 1% or greater of the composition, except that chemicals identified as carcinogens, shall be listed if the concentrations are 0.1% or greater.
 - (b) The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise less than 1% (0.1% for carcinogens) of the mixture, if there is evidence that the ingredient(s) could be released from the mixture in concentrations which would exceed an established OSHA permissible exposure limit, or could present a health hazard to employees.

- b. Physical and chemical characteristics of the hazardous chemical (such as vapor pressure, flash point)
- c. The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity
- d. The health hazards of the hazardous chemical, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical
- e. The primary route(s) of entry (inhalation, skin absorption, ingestion, etc.)
- f. The OSHA Permissible Exposure Limit (PEL) and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing MSDS, where available
- g. Whether the hazardous chemical has been found to be a potential carcinogen
- h. Any generally applicable precautions for safe handling and use which are known to the chemical manufacturer, importer or employer preparing MSDS, including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks

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- i. Any generally applicable control measures which are known to the chemical manufacturer, importer or employer preparing MSDS, such as appropriate engineering controls, work practices, or personal protective equipment
- j. Emergency and first aid procedures
- k. The date of preparation of MSDS or the last change to it
- l. The name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party preparing or distributing MSDS, who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary
- m. Specify if lead (Pb) content 0.06% by weight (600 ppm) or greater

5-3.8 Each work center will maintain a file of MSDS for each hazardous material procured, stored or used at the work center. MSDSs shall also be obtained or prepared for locally purchased items in English. Where not provided in Japanese, the bilingual training must include an explanation of the MSDS information.

5-3.9 Labeling

- a. All hazardous materials on DOD installations will have a hazardous chemical warning label on each container or the equivalent information required per definition in paragraph 5-2.1. This label and information can be obtained from HMIS. Where not provided in Japanese, the bilingual training must include an explanation of the hazardous chemical warning label information in Japanese.
- b. Laboratories are required to ensure that hazardous chemical warning labels are attached on the outside of containers used to transport incoming or outgoing hazardous chemicals. Material safety data sheets must be accessible in work areas during each workshift, and employees will be provided information and training for each chemical used.

5-3.10 DOD installations will reduce the use of hazardous materials where practical through resource recovery, recycling, source reduction, acquisition, or other minimization strategies. Procurement of Japanese hazardous materials will be limited to mission essential purposes. Japanese hazardous materials will not be purchased for convenience only.

5-3.11 All excess hazardous material will be processed through the Defense Reutilization and Marketing Service (DRMS) in accordance with the procedures in DOD 4160.21-M. DRMS will only donate, transfer, or sell hazardous material to environmentally responsible parties.

5-3.12 The installation must prevent the unauthorized entry of persons or livestock into hazardous material storage areas. Workcenters are held primarily responsible for control of their products. Installation will manage this program to ensure compliance.

5.3.13 Logistics Management.

- a. Provides a means of outlining logistical policy and procedures for managing hazardous materials and substances. It ensures adequate handling, accounting, inventory, tracking, and disposal of hazardous materials and substances. It encourages centralized control, minimization of use, and controlled requisition.
- b. DOD installations and activities, as a minimum, will apply the following techniques in the management of hazardous materials:

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- (1) DOD installations will track hazardous material through the process of ordering, receiving, storing, issue, use, returns, recycling or disposal.
- (2) All DOD installations will have an approved Hazardous Material For Use Listing which identifies hazardous material products that can be requisitioned and used.
- (3) Scrutinize procurement requirements of hazardous products to consider materials best suited to accomplish the requirement.
- (4) Control the inflow of hazardous products by establishing strict control for local acquisition or procurement of hazardous materials.
- (5) Establish prior approval procedures, granting, and "approval to purchase" authority, for all sources of supply to include international Merchant Purchase Authorization Cards (IMPAC), or any other credit card authority, for the acquisition/procurement of hazardous material or substances.
- (6) Forbid arbitrary open end local procurement unless otherwise approved and authorized by the local installation Safety and/or Environmental Officer.
- (7) Provide a centralized hazardous material control system responsive to established logistic supply systems that will identify hazardous material and its use prior to acquisition.
- (8) Hazardous Material Operational and Basic Load authorizations will be maintained at minimum essential authorized approved quantities.
- (9) Adequate protective clothing and equipment required by Title 29 CFR must be made available to all persons who enter sites where hazardous material or substances are used, stored or handled.
- (10) DOD Installations will follow a tracking system designed for tracking hazardous materials and substances from time of receipt to time of use or disposal.

<p style="text-align: center;">TABLE 5-1 TYPICAL HAZARDOUS MATERIALS CHARACTERISTICS</p>
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- I. The item is a health or physical hazard. Health hazards include carcinogens, corrosive materials, irritants, sensitizers, toxic materials, and materials which damage the skin, eyes, or internal organs. Physical hazards include combustible liquids, compressed gasses, explosives, flammable materials, organic peroxides, oxidizers, pyrophoric materials, unstable (reactive) materials and water-reactive materials.
- II. The item and/or its disposal is regulated by the host nation because of its hazardous nature.
- III. The item contains asbestos, mercury or polychlorinated biphenyls.
- IV. The item has a flash point below 93 degrees Celsius (200 degrees F) closed cup, or is subject to spontaneous heating or is subject to polymerization with release of large amounts of energy when handled, stored, and shipped without adequate control.
- V. The item is a flammable solid or is an oxidizer or is a strong oxidizing or reducing agent with a standard reduction potential of greater than 1.0 volt or less than -1.0 volt.
- VI. In the course of normal operations, accidents, leaks, or spills, the item may produce dusts, gases, fumes, vapors, mists, or smokes with one or more of the above characteristics.
- VII. The item has special characteristics which in the opinion of the manufacturer or the DOD Components could cause harm to personnel if used or stored improperly.

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